DOCUMENT RESUME

ED 053 115 TE 002 425

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TITLE The World of Science Fiction.
PUB DATE Feb 71
NOTE 14p.
JOURNAL CIT English Record; v21 n3 p27-40 Feb 1971

EDRS PRICE EDRS Price MF-$0.65 HC-$3.29
DESCRIPTORS *Literature, *Science Fiction, *Teaching Techniques

ABSTRACT

Science fiction is discussed from the following standpoints: What Is Science Fiction?; The History of Science Fiction; and The Themes of Science Fiction. A list of films, books, and records about science fiction is given. (DB)

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English Record,
Vol. 21, No. 3,
February 1971.

ED053115

TE 002 425

THE WORLD OF SCIENCE FICTION

Sheila Schwartz

As surely as the writing of Dickens reflected the Victorian world, the Romantic poets the early nineteenth century, and Mark Twain, the end of nineteenth-century America, science-fiction reflects the contemporary world with greater authenticity than other contemporary literature. Newly emerging in respectability through the film, *Space Odyssey: 2001*, here is a genre for which the classroom teacher need erect no artificial bridge to the real world. Science fiction *is* the real world; relevant, foreboding, frightening, engulfing.

What is a science fiction world? Ray Bradbury in the film, *Ray Bradbury: Story of a Writer* (Sterling Films), says that any world in which the *pedestrian* is the outsider, is a science fiction world. Bugging, thalidomide, pollution, atom bombs, flame throwers, and napalm are all part of science fiction. The following news clipping, from the "traditional" *New York Times*, is part of a science fiction world.

> *An Eerie Darkness Settles Over City*
>
> A dark yellow and black light settled over the entire Northeast yesterday and people stopped in awe and bewilderment to ponder the eerie phenomenon.
>
> Meterologists did not find the strange light disturbing, however.
>
> "We polluted the outer world, and now the gods are wreaking vengeance on us, a trade magazine editor, who asked not to be named, said laughing." "It might be the beginning of the 40 days and 40 nights."
>
> In general, however, reactions to the dismal yellow sky seemed to demonstrate how fully the moon landing has penetrated man's consciousness.
>
> "People are more alert to their environment now," said Joan Bogart, a public school teacher here who was standing under a Times Square movie marquee during a brief sprinkle. "Going to the moon has changed everything, even how we look at the sky."

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Quite Frightening

'I think it's quite frightening; I'm very superstitious,' said Dick Clark, master of ceremonies of the afternoon television show, American Bandstand, who was strolling nearby. 'This strange light coming during the moon shot makes me aware there's a great deal more up there than I used to think.'

The city's chief weather forecaster explained however, that the eerie atmosphere was caused by 'the sun trying to shine through several very thick layers of clouds.'

Gunther Reiss, senior forecaster at the United States Weather Bureau here, said two heavy banks of stratiform clouds, layered like pancakes, extended from southern Virginia to Canada yesterday, creating a dark yellowish light everywhere.

A certain combination of clouds and of air pollutants was present over the city yesterday, that apparently did two things to the sunlight, another meterologist said.

First, it screened out certain wave lengths of light, such as the extreme red from one end of the spectrum, thus giving the sunlight a different color quality. Second, the clouds and particles diffused the sunlight, thereby spreading the deep yellow pall.

'It's the gods getting even with us for what we did,' Robert Nay, an engineer in Stamford, Conn., said, partly in jest. . . .' (*The New York Times*, Tuesday, July 22, 1969)

What is Science Fiction?

For purposes of this article, we will use the definition "science fiction is fiction which deals mainly with the results of actual or imagined scientific advances upon society or individuals." In essence, it is literary fantasy which uses a scientific factor as the basic orienting point.

Among working definitions employed by practitioners are the following:

> Science fiction is a branch of fantasy identifiable by the fact that it eases the 'willing suspension of disbelief' on the part of its readers by utilizing an atmosphere of scientific credibility for its imaginative speculations in physical science, space, time, social science, and philosophy.[1]

> Science fiction is that branch of literature which deals with a fictitious society differing from our own chiefly in the nature or extent of its technological development.[2]

Asimov has an additional category of science-fiction (or s-f as it will be referred to in the remainder of this article), which he calls "social science fiction." This category, "moralizes about a current society through the device of dealing with a fictitious

[1] Sam Moskowitz, **Explorers of the Infinite: Shapers of Science Fiction.** New York: World Books, 1957, p. 11.
[2] Isaac Asimov, "Social Science Fiction" in Reginald Bretnor, **Modern Science Fiction: Its Meaning and Its Future.** New York: Coward-McCann Inc., 1953, p. 167.

society . . . (it) . . . has its eye fixed on the current society. It pictures life not as it will be or as it might be or as it could be, but as it *should* be or as it *should not be.*" [3]

The History of Science Fiction

In teaching s-f in the secondary school, two organizational approaches appear to be of equal interest to the students. These approaches are the history of science fiction and recurrent themes in s-f. Of course, the teacher may blend these two themes or find another workable organization, but for purposes of this article, historical and thematic will be discussed.

From the Beginning to 1938

Some critics trace the s-f form back to Homer's *Odyssey* because, in common with space exploration literature of our time, it combines myth, fiction, and fact, and attempts to extrapolate from the limited knowledge of the time to maintain some atmosphere of scientific credibility. It was the same sense of daring, of adventure, of exploration, and of desire to seek the unknown which led to the travel tale which was to eventually include the moon, the sun, the planets, and the stars.

However, the first s-f which is recognizable in contemporary terms is attributed to Cyrano de Bergerac, famed poet, playwright, swordsman, and witty hero of the play by Rostand. His major works in the genre were *Voyage to the Moon* (1650) and *Voyage to the Sun* (1662). Included in these works were many ideas which have been prominent in s-f since then. Among them are the idea of rocketry for space travel, metal voice recorders to be used in education, parachutes, and artificial light for illumination.

S-F, like allegory and fantasy, has often served as an acceptable cover for subversive ideas. De Bergerac's works were published only sixteen years after Galileo had been forced to recant before the Inquisition his idea that the earth and the other planets revolve around the sun, and that the sun is the center of the solar system. Other heresies in de Bergerac's works included the ideas that sunspots were new planets in formation and that the earth was created, as were the other planets, by fragments thrown off by the sun as it cooled.

Cyrano's most important influence was on Jonathan Swift who freely admitted his debt to the poet. There are dozens of instances of borrowing from Cyrano in *Gulliver's Travels*, the most obvious in the section dealing with the Houyhnhnms.

The next work of importance in this historical study of s-f is the novel, *Frankenstein* (1818), by Mary Wollstonecraft Shelley. It had a vast influence on s-f to follow. (Before 1800, other

[3] Ibid., p. 160.

than the works of Cyrano, s-f received little attention.) *Frankenstein* united three trends which had previously existed in literature, and in the process made s-f respectable. These trends included the old travel tale (escape literature), the prophetic utopia (political and social reform), and the science story.

In the inescapable interchange between the fields of science and fiction, each is continually influencing the other. While Mary Shelley was working on the idea for her book, she listened to many conversations which included discussions of the experiments of Charles Darwin, and under the influence of such discussion, she had a dream one night which became the basis for her book. She describes it, in part, in the following way:

> My imagination, unbidden, possessed and guided me, gifting the successive images that arose in my mind with a vividness far beyond the usual bounds of reverie. . . . I saw the pale student of unhallowed arts kneeling beside the thing he had put together. I saw the hideous phantasm of a man stretched out, and then, on the working of some powerful engine, show signs of life and stir with an uneasy, half-vital motion. Frightful it must be, for supremely frightful would be the effect of any human endeavor to mock the stupendous mechanism of the Creator of the world. . . .[4]

Like many s-f writers to follow, Mary Shelley viewed her supernatural framework as a point of view for discussing universal human passions and events. It is interesting to note that in the contemporary world much experimentation with reviving human beings is going on, and that experimentation with the production of human life is one of the continuing concerns of scientists.

The basic story of *Frankenstein* is well-known in our society. A scientist finds that he has developed the power of bestowing animation and so he begins to collect bits and pieces of the human body from charnal houses and unhallowed graves. Finally he animates an eight-foot high body he has put together. He performs his experiment and sees the dull yellow eye of the creature open. After that he is hounded and haunted by this creature, in much the same way that contemporary scientists are haunted by the menace which they have loosed upon mankind through the development of the atomic bomb. The question of the relationship between the scientist and his invention is one of the critical ones of our time.

Perhaps the greatest impact of Mary Shelley's book has been made through the famous film, *Frankenstein* (1932) with Boris Karloff, (See Bibliography for sequels to this film.) and the

[4] Mary Shelley, Frankenstein. New York: New American Library. A Signet Book, 1965, p. x.

word, "Frankenstein," which has become part of our language.

The next important author, historically, is Edgar Allen Poe, whose classic work in this genre is *Hans Phall—A Tale* (1835), which deals with a moon voyage in which a mender of bellows in Rotterdam makes his ascent in a balloon. After 161 days he reaches the moon where he finds, among other things, a "fantastical-looking city" and a "vast crowd of ugly little people, who none of them uttered a single syllable, or gave themselves the least trouble to render me assistance, but stood, like a parcel of idiots, grinning in a ludicrous manner and eyeing me and my balloon askant, with their arms set a-kimbo." He finds that on the moon there are alternations of heat and cold; "of unmitigated and burning sunshine for one fortnight, and more than polar frigidity for the next," and a constant transfer of moisture.

The story is notable for Poe's careful attention to scientific detail for purposes of verisimilitude, and also because it strongly influenced the work of Jules Verne, one of the most important writers in the s-f genre. Even those who have not read the works of Jules Verne may be familiar with the films made from them. Among the most notable are *Twenty Thousand Leagues Under the Sea, Around the World in Eighty Days,* and *Journey to the Center of the Earth.*

Verne was born in 1828 and wrote his first short story in 1852. He became successful in the genre by developing the full-length novel of scientific adventure. Verne lifted s-f to a higher plane because of his talent for characterization. His major figures, such as Captain Nemo, in *Twenty Thousand Leagues Under the Sea,* are well-rounded multi-dimensional figures which would be considered well drawn in any literary genre. Some critics describe him as "the father of s-f." One notable aspect of his technique was that he would crowd the background with scientific details which were logical extensions of known scientific facts. It was this extension of the known which made him particularly able to achieve suspension of disbelief from his readers.

For example, at the time he was writing only two submarines had been used for war service; a useless one-man sub used in the American Revolution and another, which systematically drowned its crews, used by the Confederacy. Verne's literary concepts of what was needed for the success of the submarine predicted today's submarines (before atomic energy) with remarkable accuracy. He discarded the hand-driven cranks of previous inventors and used electricity, and generated electricity from the decomposition of sodium which, although a miss, was a near

one since no one know about the existence at that time of radioactive substances.

Although Edison had not yet invented the electric bulb, Verne used electricity for cooking and light, and he went beyond Edison and invented the flourescent bulb. The telephone had not yet been invented but communication on the Nautilus was by telephonic device. The dimensions of the Nautilus were similar to those of modern fleet submarines.

The next important writer in history is H. G. Wells, considered by many the greatest science fiction writer. His books began to appear about thirty years after those of Verne, whose work he surpassed, not by accuracy in scientific knowledge but by literary mastery.

If a class is proceeding historically, I suggest that they read *The Time Machine* (1895), which is generally considered his finest novel. Wells was the first writer to use the idea of "the space machine," which we will be discussing in relation to later derivatives. Also recommended are his *Invisible Man* (1897), *War of the Worlds* (1898), and the short story, "The Country of the Blind" (1939). *The War of the Worlds* provided the basis for the famous Orson Welles' broadcast of 1938 called "War of the Worlds."

Wells was stylistically the best of any s-f writers who had yet appeared, and he popularized many themes which have since become familiar in s-f. Among them are invasion of the earth from outer space, machines that travel through time, accelerated human motion, conquest of man by insects, sight that penetrates walls, and ability to create artificial diamonds.

The last writer in this first historical period is Karel Capek, the first to use science-fiction as the subject for serious drama. In the period between the first and second World Wars he produced the following s-f plays in a Czechoslovakian theatre he managed with his brother: *R. U. R.* (1921), *The Insect* (1921), *The Makropoulos Affair* (1922), *Land of Many Names* (1923), *Adam the Creator* (1927).

It is through his play *R. U. R.*, that the word "robot" has become part of international language. The play R.U.R. (Rossum's Universal Robots) takes place on an island where robots are produced. The play, strangely predicting the uprisings of the downtrodden people in the 20th century, deals with the growing rebelliousness of the robots and the eventual downfall of their masters. One interesting aspect is that in it human births stop because people are becoming superfluous. A parallel to the contemporary arms race can be seen in that the universities have sent long petitions to restrict the manufacture of robots and

the R.U.R. shareholders won't listen to them. The governments want the production of robots to increase for their armies, and the manufacturers want robots to work for them so that they can continue to make massive profits.

Modern Science Fiction

Modern s-f is dated from 1938 because of the leadership exercised by John W. Campbell, editor of the magazine *Astounding Science-Fiction.* At that time, he established certain requisites for s-f which raised standards. Science-Fiction appearing in the pulp magazines prior to 1938 was primitive and unsophisticated. He insisted on a higher level of artistry in relation to the writing and the ideas; he also emphasized "indirection" as part of the s-f literary method. Campbell broadened the subjects of s-f to include politics, business, war, religion, and philosophy. In providing a market for this improved writing, he opened the way to important writers like Clarke, Asimov, Bradbury, Heinlein, Blish, Stapeldon, and others.

The Themes of Science Fiction

Science Fiction and Religion

Robert A. Heinlein, an Annapolis graduate and practicing engineer, was the first to break the taboo against religion in s-f with his 1940 novel, *Sixth Column.* His masterpiece, which has become a runaway underground bestseller, is *Stranger in a Strange Land* (New York: Berkeley Medallion, 1961).

The stranger, of the title, is Valentine Michael Smith, a man born to human parents on Mars, more Martian than man, who is brought back to Earth where he founds a new religion. Among the religious rites is the baptismal symbol in which people become water brothers, and learn to "grok" each other. Smith, like Jesus, has extraordinary gifts. He is able to go into a trance, discorporate himself and other people, and to read with electronic speed. As Smith becomes more human he finally understands the human loneliness of predestined free will and sees that he has an answer to it through Martian philosophy which incorporates serenity and the ability to embrace, cherish, savor, and love.

Smith learns about sex and says to his first partner, "Thou art God," expressing the concept of each human being's divinity. He preaches the uselessness of force and forms his own church, the Church of All Worlds. His followers learn the Martian language, wear no clothes in the "Nest" and have a communal organization of money and possessions. One of his followers says this of the church:

> Let's say it's not a religion. It is a church, in every legal and moral sense. But we're not trying to bring people to God;

> that's a contradiction, you can't say *it* in Martian. We're not trying to save souls, souls can't be lost. We're not trying to get people to have faith, what we offer is not faith but truth—truth they can check. Truth for the here-and-now, truth as matter of fact as an ironing board and as useful as bread . . . so practical that it can make war and hunger and violence and hate as unnecessary as . . . well, as clothes in the Nest.

The stranger performs miracles to protect his church, a church which is subjected to persecution by the authorities. While his body is in jail, his spirit is with his followers. He is referred to as a new Prometheus, bringing a better world to man; the "ultimate anarchist" who believes in "freedom of self—and utter personal responsibility for self." He and his followers challenge everything in society from "the sanctity of property to the sanctity of marriage."

Despite the fact that he could escape all harm because of his superior powers, the stranger permits his own destruction, his "crucifixion" by stoning. But his followers are serene because they believe the Martian truth that no man can be killed. Each of Smith's followers goes forth to found another branch of the religion.

Stranger in a Strange Land is a complicated long work which can be understood by mature students. Other s-f works which focus on religion include *A Canticle for Leibowitz* by Walter M. Miller, and Fritz Leiber's *Gather Darkness*.

Man on Other Planets

The best-known work which deals with the theme of man's influence on other planets is Ray Bradbury's *The Martian Chronicles* (New York: Bantam, 1958). Like Heinlein, Bradbury is distinguished for philosophical considerations as much as for verisimilitude in his s-f. Some critics note his lack of scientific background and accuracy, but Bradbury epitomizes the "social science fiction" writer, and he is probably the best in this area. *Martian Chronicles* is designed to point out man's cruelties and failures on earth through his imagined influence on another planet. For example, man wipes out the population of Mars by introducing chicken pox, a disease fatal to Martians.

The book, an episodic record of man's colonization of Mars from 1999 to 2026, has thematic rather than sequential unity. Incorporated in the separate elements are stock s-f devices such as robots, telepathy, mass hypnosis, intersecting time-planes, materialized fantasies, and beautiful extant cities devoid of human life.

The most complex chronicle is "And the Moon be Still as Bright," which is notable for the depth characterization of

Spender, the sensitive intellectual with the soul of a conservationist, who sits apart from the other crew members after the successful landing on Mars. He broods over what man will do to the planet.

> They'll be flopping their filthy atom bombs up here, fighting for bases to have wars. Isn't it enough they've ruined one planet, without ruining another; do they have to foul someone else's manger? The simple-minded windbags. When I got up here I felt I was not only free of their so-called culture, I felt I was free of their ethics and their customs. I'm out of their frame of reference, I thought.

Spender's worst fears are realized. Two years later "the Locusts" come and in six months, "a dozen small towns had been laid down upon the naked planet, filled with sizzling neon tubes and yellow electric bulbs. In all, some ninety thousand people came to Mars, and more on Earth were packing their grips. . . ."

Another book which deals with the theme of man's influence on other planets is Kurt Vonnegut's *The Sirens of Titan* (New York: Dell, 1959).

Other Planets on Earth

This popular theme is constantly being reflected in nonfiction accounts of the prevalence of flying saucers. The panic attending the broadcast by Orson Welles of "The War of the Worlds" (see bibliography) was a clear indication that at that time many people believed in the possibility of an invasion from another planet.

Arthur C. Clarke, author of *Space Odyssey: 2001*, hypothesizes that there is life on other planets which is involved with men in a beneficient, not a hostile way. His most notable book before *Space Odyssey: 2001*, was *Childhood's End* (New York: Ballantine, 1953). Unlike most science fiction writers, Clarke has had scientific training, both as an electronics engineer in the R. A. F. and in undergraduate and advanced studies in physics, mathematics, and astronomy. If he so desired, he could probably make a living in science rather than in writing. In an unusual blending of these two worlds, Clarke was invited to serve as one of the commentators assisting with the coverage of the Apollo 11 moonshot at Cape Kennedy.

> He went to Cape Kennedy with the C. B. S. team, and at the moment of the launch, as he told a friend on his return, he, like everyone around him, burst into tears. . . . The actual landing on the moon was, in many ways, the fulfillment of a life's dreaming and prophesying. "For me it was as if time had stopped," he said later. "Out the Ego Chamber," *The New Yorker*, August 9, 1969, p. 40.

Childhood's End begins in 1975, in a world which still contains the familiar race between Russia and the United States for scientific supremacy. Both sides realize that they have finally lost the race when they see great space ships sweeping down to earth and realize that the human race is no longer alone. The ships contain The Overlords, rulers who speak cultured English; *they* are humane and profound, but will never permit humans to see them. They eliminate war, poverty, cruelty, injustice, racial inequality, and all manner of persecution. When a country refuses to eliminate bull fighting, the Overlords contrive to have every person in the stadium feel a similar pain at the moment the bull is struck by the matador. Bullfighting ends.

The Overlords are merely agents of an Overmind which has observed that man, though irrational in every aspect of social living, has been able to develop sufficient technical ability for space exploration and consequently constitutes a threat to the entire solar system. The Overlords have come to earth to prevent this space exploration by giving man what he preceives as a Golden Age. In reality, it is man's end, for the Overlords are on earth to supervise only until the Overmind can make contact with the children and help them to emerge into a new and more advanced race, much in the same way that the fittest have survived in the evolutionary scheme.

This book has many themes in common with the text and film of *Space Odyssey: 2001*. Both hypothesize a superior intelligence which has grave concern about what man will do with his new ability to explore space. In the film, the black stone flies away shrieking when man comes upon it. At the end of *Space Odyssey,* the space explorer who has survived is returned to perfect and superior childhood. The book ends with the words: "For he had left behind the time scales of his human origin; now, as he contemplated that band of starless night, he knew his first intimations of the Eternity that yawned before him." And the baby knows that he is the new master of the world.

Clarke is one of the few writers who portrays friendly life on other planets. To many other writers who deal with this theme, life out there is completely hostile to man. Robert Heinlein in *The Puppet Masters* writes of parasitical intelligences taking over human bodies; the same idea is repeated in the film *Invasion of the Body Snatchers.* John Wyndham in his fine novel, *The Midwich Cuckoos,* from which the film *Village of the Damned,* was made, has an alien race impregnate an entire village so that children can be produced in human form who will help to destroy humanity.

Man's Destruction of Earth

Man's destruction of his own planet has a vast number of thematic variations. The most widely acclaimed s-f literature of the contemporary period is Michael Crichton's *The Andromeda Strain* (New York: Knopf, 1969). The plot of the book is so much like contemporary news stories that a reader could be tricked into thinking this non-fiction.

An unmanned space probe returns to earth carrying an extraterrestial bacteria which is fatal to human beings. The satellite was intended to bring back bacteria for use in germ warfare and is apparently successful in this form. When it lands near the town of Piedmont, Arizona, it kills everyone in the town within a number of hours with the exception of an old derelict who is high on aspirin and Sterno, and a screaming two-month old baby.

The virus, code-named the "Andromeda Strain" becomes the focus of a struggle by four scientists to find an antidote. The suspense of the book is generated by the mistakes of the four scientists who are open to self-destruction both from the germ and from the possibility of the laboratory self-destructing in case of error.

A few points should be noted here which become increasingly apparent to the student of s-f. The first is verisimilitude. The officialese of Government reports is used in addition to seemingly authentic computer charts, reports, print-outs, terms from macrobiology, epidemiology, metabolic disease, and details about how to disinfect the human body.[5] The names of real scientists, real meetings, real projects, and real papers are used to give the book a documentary feeling.

A second notable point is style. The language is completely realistic and lacking in any hyperbole, imagery, or emotional nuances. It could easily be a documentary report of a scientific project.

Third, the chief protagonist is not a person, but is, instead a scientific phenomenon. Background information about the scientists is minimal, as is information about their relationships as they work. Action is what is important and therefore what is reported—not human feelings. It is like a war period in which human relations take second place to the greater battle being waged.

Fourth, the traditional human relationships which have been the focus of romantic literature have changed. In *Space Odyssey: 2001* a father talks to his daughter by telescreen from a dis-

[5] The parallel to the return of the astronauts from space is evident. After returning from the moon they had to remain in a disinfecting environment for two weeks to make sure they had not brought back any organisms harmful to human beings.

tant planet; an astronaut is completely bored by the attempt of his parents to celebrate his birthday in a traditional family way; we learn nothing about the romantic past life of the astronauts; and the relationship of the astronauts with the computer HAL is as real as human relationships; in fact, this is the one relationship which is charged with emotion. In *The Andromeda Strain,* human relationships are as irrelevant as they would be if an atomic bomb hit a city. The focus of literature has moved completely away from novels of the past to a type of writing which might almost be described as Truman Capote described, *In Cold Blood.* That is, it is a non-fiction novel.

Other works which deal with man's destruction of his planet are Nevil Shute's *On the Beach,* Mordecai Roshwald's *Level 7,* John Hersey's *Hiroshima* (non-fiction), Pierre Boulle's *Planet of the Apes,* and John Wyndham's *Rebirth.* An extraordinary triology which deals with this but is somewhat difficult to obtain, is Olaf Stapeldon's *First and Last Men.*

Utopia and Anti-Utopia

The last major theme with which I will deal in this article is that of the utopias and anti-utopias created by science. The most famous of the anti-utopias is George Orwell's *1984,* in which science and technology are used to perpetrate many of the societal horrors with which we live today. Wars are constantly waged in far-off countries, superior bugging devices make privacy an impossibility, technology is used to destroy historical truth, technology is used to re-write language in order to make it non-humanistic, and science is used to develop superior instruments of torture. There is no escape. Science rather than God has become completely omniscient so that even a man's thoughts are not his own.

In Bradbury's *Farenheit 451,* technology has again enslaved men's minds, and its major efforts are devoted to destroying the reexamining books so that the TV screen will have complete dominance. Of course, Huxley's *Brave New World* provides another anti-utopian excursion.

Utopian novels include C. S. Lewis' *Perelandra* triology and B. F. Skinner's *Walden II,* in which science is gradually bringing the good life within reach of all. The intelligent application of science has even changed men's attitudes in such areas as envy, jealousy, competitiveness, and hostility.

Additional themes to be explored are the following: **Marvelous Machines** through *The Time Machine, Twenty Thousand Leagues Under the Sea,* and *Door Into Summer* by Heinlein, and **Science and the Individual Man** through *Flowers for Algernon,* by Keyes (the film *Charly*), *The Manchurian Candidate,* by Con-

don (the film with same title), and *The Invisible Man,* by Wells.

This article has touched on s-f as a new and constantly developing genre. Much of the writing in the area is amateurish, not up to the literary standards with which English teachers feel comfortable. But the works I have discussed are good books. Students like them. They talk about a world with which students will have to contend; a world of pollution, smog, bombs, pills, oil slicks, mace, nuclear-power stations, thousand-seater jets, explosives, thalidomide, drugs, and laser beams. Using s-f in the classroom gives the teacher an opportunity to meet the student in the world in which he lives.

LIST OF FILMS

ALPHAVILLE (1965)
TRIP TO THE MOON, George Melies, $6.50. This is the first film about a moon journey. Produced in 1902 by the famous French filmaking pioneer, George Melies. Obtainable from the Museum of Modern Art.
PLANET OF THE APES (based on the book of the same title)
THE FLY
THE BLOB
THE THING
VILLAGE OF THE DAMNED (Based on *The Midwich Cuckooes*)
MAROONED (1970)
THESE ARE THE DAMNED
PANIC IN THE YEAR ZERO
EARTH VERSUS FLYING SAUCERS
THE DAY THE EARTH STOOD STILL (1951)
THE DAY THE EARTH CAUGHT FIRE (1961)
THE INCREDIBLE SHRINKING MAN
CREATURE WITH THE ATOM BRAIN (1955)
THE INVISIBLE MAN (1936) (based on the Wells' novel)
FIEND WITHOUT A FACE
DR. JEKYLL AND MR. HYDE (1932) (based on the Stevenson novel)
THE MAN WITH THE X-RAY EYES
THE H-MAN
THE 4-D MAN
IT CAME FROM OUTER SPACE
THE INVASION OF THE BODY SNATCHES
THE CREEPING UNKNOWN
CRACK IN THE WORLD
SECONDS
FARENHEIT 451 (1966)
FORBIDDEN PLANET (1956)
LA JETEE
SPACE ODYSSEY: 2001
VOYAGE TO THE END OF THE UNIVERSE (Czech, 1963)
THINGS TO COME (1935) (based on a work by H. G. Wells)
TRANSATLANTIC TUNNEL (1935)
THE TIME MACHINE (1960)
FANTASTIC VOYAGE (1966) (based on the Asimov novel)
ILLUSTRATED MAN (1969) (based on a work by Bradbury)
JOURNEY TO THE CENTER OF THE EARTH (based on a novel by Jules Verne)

TWENTY THOUSAND LEAGUES UNDER THE SEA (based on a novel by Julles Verne)
1984 (based on the novel by George Orwell)
THE WORLD, THE FLESH, AND THE DEVIL
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OMICRON (Italian)
STEREO (Canadian)
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FAIL-SAFE
DR. STRANGELOVE, OR HOW I STOPPED WORRYING AND LEARNED TO LOVE THE BOMB
RAY BRADBURY—20 minutes, b/w, $17.50 Rental, Sterling Films.
FRANKENSTEIN
THE BRIDE OF FRANKENSTEIN
SON OF FRANKENSTEIN
GHOST OF FRANKENSTEIN
FRANKENSTEIN MEETS THE WOLF MAN
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This is an original recording of the famous Orson Welles' broadcast that frightened the nation in the Fall of 1938.

SOUNDS OF SCIENCE FICTION. Descriptive notes. SN16. Educational Audio Visual, Inc., Pleasantville, N. Y. 10570.

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